## DEER CREEK AND TULE RIVER AUTHORITY REMOTE SENSING AND WATER BALANCE ANALYSIS MODEL

### **ATTACHMENT 8: QUALITY ASSURANCE**

The Quality Assurance and Quality Control (QA/QC) for this project is broken into two categories, Project Procedural/Management and Project Technical QA/AC, both essential for the project to succeed.

### 1. Project Procedural / Management QA/QC

To ensure the Project is completed on schedule and within budget, as well as keeping the DCTRA Board of Directors and Stakeholders involved, the management of the Project is set up with different layers of checks and balances, to keep the Project Team accountable. The appointed Project Director is ultimately accountable for the Project management and providing updates to the stakeholders and the DWR Grant Management team. The Project Director will be held accountable monthly by the Advisory Committee of the DCTRA Board. At the time the Project begins, the Advisory Committee will be provided a copy of the Project Budget and Schedule. At each meeting, the Project Director, with assistance from the consultant team, will provide a Project update, including a summary of what items have been completed, status of ongoing Tasks, and updates on how the future milestones will be accomplished to stay on schedule. The Advisory Committee will assume the responsibilities of overseeing the Project Director to make sure the implementation of the grant and milestones are being completed on schedule. The Advisory Committee will report and provide updates to the DCTRA Board on a bimonthly basis at each Board meeting.

By having this constant flow of communication between the Consultant, Advisory Committee and the Project Director, the Project will consistently remain at the forefront of discussions between the Committee members and stakeholders. This process has been used when implementing Groundwater Management Plan Updates and the Groundwater Management Plan Annual Reports, which has been very successful in keeping projects on track and within budget and keeping the stakeholders involved.

Additionally, Progress Reports will be prepared by the DCTRA and submitted to the DWR throughout the duration of the Project, as different milestones identified in the Work Plan are met. This will keep the DWR staff updated with the Project status and keep them informed of progress.

## 2. Project Technical QA/QC

It is essential that the data collected and identified within the Basin for this Project be accurate and that standard methodologies are implemented. Following is a list of the technical QA/QC measures that will be implemented for this Project to ensure accurate and valid data is used in the summary report:

#### Technical Data QA/QC:

The purpose of the project is to develop a calibrated model that can be used in the future to determine water demands. The project in and of itself is a quality control and assurance project. The aerial imagery will be compared to the land use maps prepared by the DWR and existing crop data and reports prepared by other agencies (Bureau, Irrigation Districts, etc.).

#### Professional Qualifications:

The Project Team is made up of licensed professional individuals. The overall project manager will be David De Groot, RCE 70992, a licensed Civil Engineer in the State of California, with experience in hydrogeology and water resources. Other licensed

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engineers will assemble the model, under the supervision of Byron Clark, PE with Davids Engineering, Inc. The technical staff assembling the data and compiling the results will be under the direct supervision of these licensed professionals. The overall Project Director, Dan Vink, has over 15 years of experience managing projects within the DCTRA Basin, ranging from new canal projects to groundwater banking projects, to monitoring and management plans.

#### Calibration of Data:

One of the objectives of this Project is to establish the historical baseline conditions of the Basin so that future changes to the Basin can be better identified and prioritization of groundwater resource management can be established. The data will be calibrated and verified for accuracy by implementing the following checks and balance calculations as possible.

- Compare existing land use maps (aerial imagery) to crop data, both of which are used to calculate Basin water demands. The cropping data and land use maps should have similar results regarding total acres of cropland, etc.
- Compare surface water quantity data with local irrigation districts to data provided by the Army Corps of Engineers regarding released water from Success Dam and from the Bureau of Reclamation regarding Central Valley Project Water released. The irrigation districts and the government agency data should be similar.